

Mitigation Monitoring for the Bay-Delta Marine Sand Dredging Reclamation Plans

ENVIRONMENTAL ISSUE	MITIGATION MEASURE	IMPLEMENTED BY	TRANSMITTED TO
<p>BIOLOGICAL RESOURCES</p> <p>Impacts to sensitive species, habitat, wetlands, and or migratory corridors in Suisun Bay may occur if dredging is conducted near shorelines or shallow water.</p>	<p>Sand mining operations in Suisun Bay shall conduct operations in accordance with a valid Order issued by the RWQCB.</p> <p>Current Order restrictions require:</p> <ul style="list-style-type: none"> Marine sand dredging is prohibited within 200 feet of any shoreline and within 250 feet of any water less than four feet in depth (MLLW). <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Order, the Order must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Order prior to the expiration of the current Order and present it to the SMGB for acceptance.</p>	<p>Hanson Suisun Bay Middle Ground Shoal</p> <p>RMC Suisun Bay Middle Ground Shoal</p> <p>Jerico Suisun Bay Middle Ground Shoal</p>	<p>RWQCB (Permit monitoring)</p> <p>SMGB (new Permits)</p>
<p>BIOLOGICAL RESOURCES</p> <p>Impacts to sensitive species, habitat, wetlands, and or migratory corridors in the Central Bay may occur if dredging is conducted near shorelines or shallow water.</p>	<p>Sand mining operations in the Central Bay shall conduct operations in accordance with valid Permits issued by the BCDC and the ACOE.</p> <p>Current Permit restrictions require the following setbacks:</p> <ul style="list-style-type: none"> Hanson Point Knox Shoal; 30-foot MLLW water depths. Hanson Alcatraz, Presidio, Point Knox: 200 feet away from any shoreline and 250 feet from 4-foot MLLW shoals and 100 feet of Alcatraz Island and 30 foot MLLW. Hanson Point Knox South: 30-foot MLLW water depths. Hanson Alcatraz South Shoal: 30-foot MLLW water depths. <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Permits, the Permits must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Permit prior to the expiration of the current Permit and present it to the SMGB for acceptance.</p>	<p>Hanson Point Knox Shoal; 30-foot MLLW water depths</p> <p>Hanson Alcatraz, Presidio, Point Knox: 200 feet away from any shoreline and 250 feet from 4-foot MLLW shoals, or 100 feet of Alcatraz Island and 30 foot MLLW</p> <p>Hanson Point Knox South: 30-foot MLLW water depths</p> <p>Hanson Alcatraz South Shoal: 30-foot MLLW water depths.</p>	<p>ACOE (Permit monitoring)</p> <p>BCDC (Permit monitoring)</p> <p>SMGB (new Permits)</p>

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<p>GEOLOGICAL RESOURCES</p> <p>Accelerated loss of substrate through mining and lack of replenishment of substrate during the reclamation process would be the main concern in terms of the projects' impacts on the geologic environment in the Suisun Bay if dredging is conducted in low velocity current areas.</p>	<p>High velocity current areas in the Bay-Delta receive sediment at high rates compared to low velocity current areas. The same restrictions that will avoid dredging activities in fine-grained substrates will also tend to focus dredging at high velocity sand substrates.</p> <p>Sand mining operations in Suisun Bay shall conduct operations in accordance with a valid Order issued by the RWQCB.</p> <p>Current Order restrictions require:</p> <ul style="list-style-type: none"> Marine sand dredging is prohibited within 200 feet of any shoreline and within 250 feet of any water less than four feet in depth (MLLW). <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Order, the Order must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Order prior to the expiration of the current Order and present it to the SMGB for acceptance.</p>	<p>Hanson Suisun Bay Middle Ground Shoal</p> <p>RMC Suisun Bay Middle Ground Shoal</p> <p>Jerico Suisun Bay Middle Ground Shoal</p>	<p>RWQCB (Permit monitoring)</p> <p>SMGB (new Permits)</p>
<p>GEOLOGICAL RESOURCES</p> <p>Accelerated loss of substrate through mining and lack of replenishment of substrate during the reclamation process would be the main concern in terms of the projects' impacts on the geologic environment in the Central Bay if dredging is conducted in low velocity current areas.</p>	<p>High velocity current areas in the Bay-Delta receive sediment at high rates compared to low velocity current areas. The same restrictions that will avoid dredging activities in fine-grained substrates will also tend to focus dredging at high velocity sand substrates.</p> <p>Sand mining operations in the Central Bay shall conduct operations in accordance with valid Permits issued by the BCDC and the ACOE.</p> <p>Current Permit restrictions require the following setbacks:</p> <ul style="list-style-type: none"> Hanson Point Knox Shoal: 30-foot MLLW depth. Hanson Alcatraz, Presidio, Point Knox: 200 feet from any shoreline and 250 feet of 4-foot MLLW shoal depths and 100 feet of Alcatraz Island and 30-foot MLLW depth. Hanson Point Knox South: 30-foot MLLW depth. Hanson Alcatraz South Shoal: 30-foot MLLW depth. <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Permits, the Permits must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Permit prior to the expiration of the current Permit and present it to the SMGB for acceptance.</p>	<p>Hanson Point Knox Shoal: 30-foot MLLW depth, or greater</p> <p>Hanson Alcatraz, Presidio, Point Knox: 200 feet from any shoreline and 250 feet of 4-foot MLLW shoal depths and 100 feet of Alcatraz Island and 30-foot MLLW depth.</p> <p>Hanson Point Knox South: 30-foot MLLW depth.</p> <p>Hanson Alcatraz South Shoal: 30-foot MLLW depth.</p>	<p>ACOE (Permit monitoring)</p> <p>BCDC (Permit monitoring)</p> <p>SMGB (new Permits)</p>

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<p>GEOLOGICAL RESOURCES</p> <p>Accelerated loss of substrate through mining and lack of replenishment of substrate during the reclamation process would be the main concern in terms of the projects' impacts on the geologic environment if dredging is conducted in low velocity current areas.</p>	<p>Sand mining operations shall conduct operations in accordance with valid Permits issued by the BCDC and the ACOE.</p> <p>A cap on the volume of sand that may be dredged in accordance with the most restrictive Permit and/or Leases is imposed. Leases and Permits all have not-to-exceed annual production volumes. No substantial increase in production volumes, defined as a 5% increase of the total in any single most limiting Lease or Permit requirements, shall occur.</p> <p>Current Permit restrictions limit the operations to the following production volumes:</p> <ul style="list-style-type: none"> • Hanson Suisun Bay Middle Ground Shoal: 450,000 cubic yards per year (based on the combined total of the ACOE Permits). • RMC Suisun Bay Middle Ground Shoal: 250,000 cubic yards per year (based on both the ACOE and BCDC Permits). • Jerico Suisun Bay Middle Ground Shoal: 250,000 cubic yards per year (based on ACOE, BCDC Permits and the Grossi Lease). • Suisun Associates Suisun Bay Carquinez West & East: 100,00 cubic yards per year (based on the SLC Lease and ACOE Permit). • RMC Alcatraz Sand Shoal: 50,000 cubic yards per year (based on the ACOE Permit). • Hanson Point Knox Shoal: 400,000 cubic yards per year based on the SLC Lease, ACOE and BCDC Permits). • Hanson Alcatraz, Presidio, Point Knox: 540,000 cubic yards per years (based on the SLC Lease). • RMC Carquinez Straits: 50,000 cubic yards per year (based on the SLC Lease, ACOE and BCDC Permits). • Hanson Point Knox South: 300,000 cubic yards per year (based on the ACOE and BCDC Permits). • RMC Alcatraz South Shoal: 150,000 cubic yards per year (based on the SLC Lease, ACOE and BCDC Permits). <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Permits, the Permits must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Permit prior to the expiration of the current Permit and present it to the SMGB for acceptance.</p>	<p>Hanson Suisun Bay Middle Ground Shoal</p> <p>RMC Suisun Bay Middle Ground Shoal</p> <p>Jerico Suisun Bay Middle Ground Shoal</p> <p>Suisun Associates Suisun Bay Carquinez West & East</p> <p>RMC Alcatraz Sand Shoal</p> <p>Hanson Point Knox Shoal</p> <p>Hanson Alcatraz, Presidio, Point Knox</p> <p>RMC Carquinez Straits</p> <p>Hanson Point Knox South</p> <p>Hanson Alcatraz South Shoal</p>	<p>ACOE (Permit monitoring)</p> <p>BCDC (Permit monitoring)</p> <p>SLC (Lease monitoring)</p> <p>Grossi (private Lease monitoring)</p> <p>SMGB (new Leases)</p>

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<p>HYDROLOGY AND WATER QUALITY</p> <p>Impacts to water quality could cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.</p>	<p>Sand mining operations in Suisun Bay shall conduct operations in accordance with a valid Order issued by the RWQCB.</p> <p>Current Order restrictions require:</p> <p>Self-testing of the plume and ambient waters be conducted to ensure this premise is correct. The operators observe RWQCB Order #95-177 and its amendments which require a self-monitoring program be in place to insure continued observation of a 10:1 plume dissipation requirement criteria, as follows:</p> <ul style="list-style-type: none"> • Dissolved Oxygen: 5.0 mg/l minimum; and • Dissolved Sulfide: 0.1 mg/l maximum. <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Order, the Order must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Order prior to the expiration of the current Order and present it to the SMGB for acceptance.</p>	<p>Hanson Suisun Bay Middle Ground Shoal RMC Suisun Bay Middle Ground Shoal Jerico Suisun Bay Middle Ground Shoal Suisun Associates Suisun Bay Carquinez West & East RMC Alcatraz Sand Shoal Hanson Point Knox Shoal Hanson Alcatraz, Presidio, Point Knox RMC Carquinez Straits Hanson Point Knox South Hanson Alcatraz South Shoal</p>	<p>RWQCB (Permit monitoring)</p> <p>SMGB (Permit renewals)</p>

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<p>RECREATION</p> <p>Possible impacts to regional recreational fishing and boating may be incurred if current Permit restrictions are not in place.</p>	<p>All operations shall have a current Permit from the BCDC that requires the operator to consult with DFG to identify recreational fishing and boating areas to be avoided by the operations.</p> <p>To extend the validity of the approved term-limited reclamation plan past the expiration of the current Permits, the Permits must be reissued with the same, or parallel restrictions. The operator must secure a valid extension of the Permit prior to the expiration of the current Permit and present it to the SMGB for acceptance.</p>	<p>Hanson Suisun Bay Middle Ground Shoal Jerico Suisun Bay Middle Ground Shoal Suisun Associates Suisun Bay Carquinez West & East RMC Alcatraz Sand Shoal Hanson Point Knox Shoal Hanson Alcatraz, Presidio, Point Knox RMC Carquinez Straits Hanson Point Knox South Hanson Alcatraz South Shoal</p>	<p>BCDC (Permit monitoring)</p> <p>SMGB (Permit renewals and RMC Suisun Bay Middle Ground Shoal Reclamation Plan)</p>
<p>MANDTORY FINDINGS OF SIGNIFICANCE</p> <p>The information collected in the AHFP study indicates no significant impact, individual or cumulative, from sand mining in the Bay-Delta estuary has been detected. Given the complexity of environmental factors and conditions present, the bio-geographic specificity of many of the available studies present in the literature, and technical limitations, some of the possible impacts resulting from sand dredging operations may occur as cumulative impacts given a longer time frame or improved capabilities for detection.</p>	<p>The AHFP study (Section 9.0) identifies areas of information and supplemental studies that should be considered in completing any further analyses of potential environmental impacts of marine sand mining in the Bay-Delta. These areas would be considered in an independent environmental analysis prior to consideration of the approval of any future Permits and in the renewal of SLC Leases that expire concurrent with the term-limited of the reclamation plan approval.</p> <ul style="list-style-type: none"> • The Reclamation Plans considered in this project are limited in term to expire on July 1, 2008. • Cumulative volumes of sand dredged will not significantly increase (within 5%) and leased areas will not be expanded during the approval period for the term-limited Reclamation Plans without an independent environmental analysis. • Additional lease areas shall not have new Reclamation Plans approved without an independent environmental analysis. 	<p>Hanson Suisun Bay Middle Ground Shoal Jerico Suisun Bay Middle Ground Shoal Suisun Associates Suisun Bay Carquinez West & East RMC Alcatraz Sand Shoal Hanson Point Knox Shoal Hanson Alcatraz, Presidio, Point Knox RMC Carquinez Straits Hanson Point Knox South Hanson Alcatraz South Shoal</p>	<p>BCDC</p> <p>ACOE</p> <p>SMGB</p>